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PROJECT ABSTRACT

Colorado Plateau Cooperative Ecosystem Studies Unit (Cooperative Agreement # H1200-09-0005)

Park: Zion National Park

Project Title: Protect historic structures, visitor experience, health by developing ringtail relocation strategy (PMIS Number 160306)

Funding Amount: \$89,000

CPCESU Partner Institution: Utah State University

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Abstract:

This research will provide information on the movement distances and social structure of ringtails while directly addressing a management issue at Zion National Park. Ringtails frequently enter buildings in Zion National Park, where they pose a direct threat to visitor enjoyment and to historic structures, and pose potential human health threats. Although park and concessioner efforts have successfully excluded ringtails from some buildings, these efforts have failed in others. Many of these buildings are historic structures, where additional considerations are required to modify in order to exclude ringtails. Ringtails have been live-trapped from buildings and relocated, but multiple repeat visits within a short time indicate that the relocations are not successful. The desired management is to remove the offending animals and relocated them in such a way that they can continue their natural history in a similar habitat where they cannot cause conflict with human activities. However, the information needed to succeed in this management strategy, such as home range size, is lacking or possibly outdated (Trappe 1978). Specifically, information regarding their movement distances and social structure is lacking. Study is needed to develop a strategy that will protect visitors from potential harm and will ensure that the historic fabric and our ringtail population will both be retained for future visitor enjoyment. Information gleaned in this study will be applicable to other agencies, and to owners and occupants of private buildings including businesses and private residences throughout the southwest.

The study will involve trapping and radio-tracking ringtails for three years. Ringtails will be captured when they enter buildings in Zion National Park, using baited live traps (Trappe 1978). These animals will be ear-marked for visual identification and collared with a VHF radio-collar. The captured animal will be released at a pre-determined distance from the building. The animal will be radio-tracked on a minimum of a weekly basis until the animal disappears, the collar battery dies, or the animal returns to a building. Each time an individual animal is trapped in a building, it will be released at a predetermined distance greater than the previous relocation distance. This process will be repeated until the animal no longer returns to human-inhabited areas. Radio-tracking of the animal will continue, to gather natural history information on the individual, until we lose contact with the animal or the animal dies. In the second and third years, ringtails will also be trapped in natural areas of the park.

Keywords:

Wildlife-human interactions, mammals, protocols